

RECREATIONAL INTERPRETATIONS
Benson, Eddy, Nelson Counties,
North Dakota

The soils of the survey area are rated in the following tables according to limitations that affect their suitability for recreation. The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect the recreational uses. Not limited indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. Slightly limited indicates that the soil has features that are favorable for the specified use. The limitations are minor and can be easily overcome. Good performance and low maintenance can be expected. Somewhat limited indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. Very limited indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the tables indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.00 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

The ratings in the tables are based on restrictive soil features, such as wetness, slope, and texture of the surface layer. Susceptibility to flooding is considered. Not considered in the ratings, but important in evaluating a site, are the location and accessibility of the area, the size and shape of the area and its scenic quality, vegetation, access to water, potential water impoundment sites, and access to public sewer lines. The capacity of the soil to absorb septic tank effluent and the ability of the soil to support vegetation also are important. Soils that are subject to flooding are limited for recreational uses by the duration and intensity of flooding and the season when flooding occurs. In planning recreational facilities, onsite assessment of the height, duration, intensity, and frequency of flooding is essential.

The information in this table can be supplemented by other information in this survey, for example, interpretations for building site development, construction materials, sanitary facilities, and water management.

Camp areas require site preparation, such as shaping and leveling the tent and parking areas, stabilizing roads and intensively used areas, and installing sanitary facilities and utility lines. Camp areas are subject to heavy foot traffic and some vehicular traffic. The ratings are based on the soil properties that affect the ease of developing camp areas and the performance of the areas after development. Slope, stoniness, and depth to bedrock or a cemented pan are the main concerns affecting the development of camp areas.

The soil properties that affect the performance of the areas after development are those that influence trafficability and promote the growth of vegetation, especially in heavily used areas. For good trafficability, the surface of camp areas should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a water table, ponding, flooding, permeability, and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, permeability, and toxic substances in the soil.

Picnic areas are subject to heavy foot traffic. Most vehicular traffic is confined to access roads and parking areas. The ratings are based on the soil properties that affect the ease of developing picnic areas and that influence trafficability and the growth of vegetation after development. Slope and stoniness are the main concerns affecting the development of picnic areas. For good trafficability, the surface of picnic areas should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a water table, ponding, flooding, permeability, and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, permeability, and toxic substances in the soil.

Playgrounds require soils that are nearly level, are free of stones, and can withstand intensive foot traffic. The ratings are based on the soil properties that affect the ease of developing playgrounds and that influence trafficability and the growth of vegetation after development. Slope and stoniness are the main concerns affecting the development of playgrounds. For good trafficability, the surface of the playgrounds should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a water table, ponding, flooding, permeability, and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, permeability, and toxic substances in the soil.

Paths and trails for hiking and horseback riding should require little or no slope modification through cutting and filling. The ratings are based on the soil properties that affect trafficability and erodibility. These properties are stoniness, depth to a water table, ponding, flooding, slope, and texture of the surface layer.

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Golf fairways are subject to heavy foot traffic and some light vehicular traffic. Cutting or filling may be required. Irrigation is not considered in the ratings. The ratings are based on the soil properties that affect plant growth and trafficability after vegetation is established. The properties that affect plant growth are reaction; depth to a water table; ponding; depth to bedrock or a cemented pan; the available water capacity in the upper 40 inches; the content of salts, sodium, or calcium carbonate; and sulfidic materials. The properties that affect trafficability are flooding, depth to a water table, ponding, slope, stoniness, and the amount of sand, clay, or organic matter in the surface layer. The suitability of the soil for traps, tees, roughs, and greens is not considered in the ratings.

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(The information in this report indicates the dominant soil condition but does not eliminate the need for onsite investigation)

Map symbol and soil name	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
Ab: ABERDEEN-----	Severe: excess sodium	Severe: excess sodium	Severe: excess sodium	Slight	Severe: excess sodium
Ae: ABERDEEN-----	Severe: excess sodium	Severe: excess sodium	Severe: excess sodium	Slight	Severe: excess sodium
EXLINE-----	Severe: excess sodium	Severe: excess sodium	Severe: excess sodium	Moderate: wetness	Severe: excess sodium
Ar: ARVESON-----	Severe: wetness	Severe: wetness	Severe: wetness	Severe: wetness	Severe: wetness
As: ARVILLA-----	Slight	Slight	Slight	Slight	Moderate: droughty
AtA: ARVILLA-----	Slight	Slight	Slight	Slight	Moderate: droughty
AtB: ARVILLA-----	Slight	Slight	Slight	Slight	Moderate: droughty
AvA: ARVILLA-----	Slight	Slight	Slight	Slight	Moderate: droughty
AvB: ARVILLA-----	Slight	Slight	Moderate: slope	Slight	Moderate: droughty
AxC: ARVILLA-----	Slight	Slight	Severe: slope	Slight	Moderate: droughty
SIOUX-----	Slight	Slight	Severe: slope	Slight	Severe: droughty
BaA: BARNES-----	Slight	Slight	Moderate: small stones	Slight	Slight
BaB: BARNES-----	Slight	Slight	Moderate: slope small stones	Slight	Slight
BaC: BARNES-----	Slight	Slight	Severe: slope	Slight	Slight
BbA: BARNES-----	Slight	Slight	Moderate: small stones	Slight	Slight
SVEA-----	Slight	Slight	Moderate: small stones	Slight	Slight
BbB: BARNES-----	Slight	Slight	Moderate: slope small stones	Slight	Slight

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Map symbol and soil name	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
SVEA-----	Slight	Slight	Moderate: slope small stones	Slight	Slight
BcB: BARNES-----	Slight	Slight	Moderate: large stones slope	Slight	Moderate: large stones
SVEA-----	Slight	Slight	Moderate: large stones slope	Slight	Moderate: large stones
BdC: BARNES-----	Slight	Slight	Severe: slope	Slight	Slight
SVEA-----	Slight	Slight	Severe: slope	Slight	Slight
BUSE-----	Slight	Slight	Severe: slope	Slight	Slight
BeC: BARNES-----	Slight	Slight	Severe: slope	Slight	Moderate: large stones
SVEA-----	Slight	Slight	Severe: slope	Slight	Moderate: large stones
BUSE-----	Slight	Slight	Severe: slope	Severe: large stones	Severe: large stones
Bg: BEARDEN-----	Severe: excess salt	Severe: excess salt	Severe: excess salt	Moderate: wetness	Severe: excess salt
Bh: BINFORD-----	Slight	Slight	Slight	Slight	Moderate: droughty
BkA: BINFORD-----	Slight	Slight	Slight	Slight	Moderate: droughty
BkB: BINFORD-----	Slight	Slight	Moderate: slope	Slight	Moderate: droughty
BlA: BINFORD-----	Slight	Slight	Slight	Slight	Moderate: droughty
BlB: BINFORD-----	Slight	Slight	Moderate: slope	Slight	Moderate: droughty
BmC: BINFORD-----	Slight	Slight	Severe: slope	Slight	Moderate: droughty
COE-----	Slight	Slight	Severe: slope	Slight	Severe: droughty

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Map symbol and soil name	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
BmD: BINFORD-----	Moderate: slope	Moderate: slope	Severe: slope	Slight	Moderate: slope droughty
COE-----	Moderate: slope	Moderate: slope	Severe: slope	Slight	Severe: droughty
Bn: BORUP-----	Severe: wetness	Severe: wetness	Severe: wetness	Severe: wetness	Severe: wetness
Bo: BORUP-----	Severe: ponding	Severe: ponding	Severe: ponding	Severe: ponding	Severe: ponding
MARYSLAND-----	Severe: ponding	Severe: ponding	Severe: ponding	Severe: ponding	Severe: ponding
BpB: BORUP-----	Severe: wetness	Severe: wetness	Severe: wetness	Severe: wetness	Severe: wetness
VALLERS-----	Severe: wetness	Moderate: percs slowly wetness	Severe: wetness	Moderate: wetness	Moderate: wetness
BrB: BRANTFORD-----	Slight	Slight	Moderate: slope small stones	Slight	Moderate: droughty
BsA: BRANTFORD-----	Slight	Slight	Moderate: small stones	Slight	Moderate: droughty
BsB: BRANTFORD-----	Slight	Slight	Moderate: slope small stones	Slight	Moderate: droughty
BtA: BRANTFORD-----	Slight	Slight	Moderate: small stones	Slight	Moderate: droughty
BtB: BRANTFORD-----	Slight	Slight	Moderate: slope small stones	Slight	Moderate: droughty
BuC: BRANTFORD-----	Slight	Slight	Severe: slope	Slight	Moderate: droughty
COE-----	Slight	Slight	Severe: slope	Slight	Severe: droughty
Bv: BRANTFORD-----	Slight	Slight	Moderate: small stones	Slight	Moderate: droughty
KENSAL-----	Slight	Slight	Slight	Slight	Slight
BwE: BUSE-----	Severe: slope	Severe: slope	Severe: slope	Moderate: slope	Severe: slope

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Map symbol and soil name	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
BARNES-----	Severe: slope	Severe: slope	Severe: slope	Moderate: slope	Severe: slope
BxD: BUSE-----	Severe: slope	Severe: slope	Severe: slope	Moderate: slope	Severe: slope
EDGELEY-----	Severe: slope	Severe: slope	Severe: slope	Moderate: slope	Severe: slope
ByE: BUSE-----	Severe: slope	Severe: slope	Severe: slope	Moderate: slope	Severe: slope
KLOTEN-----	Severe: area reclaim slope thin layer	Severe: area reclaim slope thin layer	Severe: area reclaim slope thin layer	Moderate: slope	Severe: area reclaim slope thin layer
BzD: BUSE-----	Severe: slope	Severe: slope	Severe: slope	Moderate: slope	Severe: slope
SIOUX-----	Severe: slope	Severe: slope	Severe: slope small stones	Moderate: slope	Severe: droughty
ZELL-----	Moderate: slope	Moderate: slope	Severe: slope	Slight	Moderate: slope
Ca: CATHAY-----	Severe: excess sodium	Severe: excess sodium	Severe: excess sodium	Slight	Severe: excess sodium
ChA: HEIMDAL-----	Slight	Slight	Slight	Slight	Slight
CATHAY-----	Severe: excess sodium	Severe: excess sodium	Severe: excess sodium	Slight	Severe: excess sodium
ChB: CATHAY-----	Severe: excess sodium	Severe: excess sodium	Severe: excess sodium	Slight	Severe: excess sodium
HEIMDAL-----	Slight	Slight	Moderate: slope	Slight	Slight
Cm: CATHAY-----	Severe: excess sodium	Severe: excess sodium	Severe: excess sodium	Slight	Severe: excess sodium
LARSON-----	Severe: excess sodium	Severe: excess sodium	Severe: excess sodium	Slight	Severe: excess sodium
Cn: CAVOUR-----	Severe: excess sodium	Severe: excess sodium	Severe: excess sodium	Slight	Severe: excess sodium
CRESBARD-----	Severe: excess sodium	Severe: excess sodium	Severe: excess sodium	Slight	Severe: excess sodium
Co: CAVOUR-----	Severe: excess sodium	Severe: excess sodium	Severe: excess sodium	Slight	Severe: excess sodium

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Map symbol and soil name	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
VALLERS-----	Severe: wetness	Moderate: percs slowly wetness	Severe: wetness	Moderate: wetness	Moderate: large stones wetness
CpB: CAVOUR-----	Severe: excess sodium	Severe: excess sodium	Severe: excess sodium	Slight	Severe: excess sodium
CrA: CLAIRE-----	Slight	Slight	Slight	Moderate: too sandy	Severe: droughty
CrB: CLAIRE-----	Slight	Slight	Moderate: slope	Moderate: too sandy	Severe: droughty
Cs: CLAIRE-----	Slight	Slight	Slight	Slight	Severe: droughty
Ct: CLAIRE-----	Slight	Slight	Moderate: slope	Moderate: too sandy	Severe: droughty
LOHNES-----	Moderate: too sandy	Moderate: too sandy	Moderate: slope	Moderate: too sandy	Moderate: droughty
Cu: CLONTARF-----	Slight	Slight	Slight	Slight	Moderate: droughty
CvB: COE-----	Slight	Slight	Moderate: slope	Slight	Severe: droughty
CvD: COE-----	Severe: slope	Severe: slope	Severe: slope	Moderate: slope	Severe: slope droughty
Cw: COLVIN-----	Severe: wetness	Severe: wetness	Severe: wetness	Severe: wetness	Severe: wetness
Cx: COLVIN-----	Severe: excess salt wetness	Severe: excess salt wetness	Severe: excess salt wetness	Severe: wetness	Severe: excess salt wetness
Cy: COLVIN-----	Severe: ponding	Severe: ponding	Severe: ponding	Severe: ponding	Severe: ponding
Cz: CRESBARD-----	Severe: excess sodium	Severe: excess sodium	Severe: excess sodium	Slight	Severe: excess sodium
CAVOUR-----	Severe: excess sodium	Severe: excess sodium	Severe: excess sodium	Slight	Severe: excess sodium
DvA: DIVIDE-----	Moderate: percs slowly wetness	Moderate: percs slowly wetness	Moderate: percs slowly wetness	Moderate: wetness	Moderate: wetness

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Map symbol and soil name	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
DvB: DIVIDE-----	Moderate: percs slowly wetness	Moderate: percs slowly wetness	Moderate: percs slowly slope wetness	Moderate: wetness	Moderate: wetness
Dx: DIVIDE-----	Moderate: percs slowly wetness	Moderate: percs slowly wetness	Moderate: percs slowly wetness	Moderate: wetness	Moderate: wetness
Dy: DIVIDE-----	Moderate: percs slowly wetness	Moderate: percs slowly wetness	Moderate: percs slowly wetness	Moderate: wetness	Moderate: wetness
Dz: DIVIDE-----	Slight	Slight	Slight	Slight	Slight
EaA: ECKMAN-----	Slight	Slight	Slight	Slight	Slight
EaB: ECKMAN-----	Slight	Slight	Moderate: slope	Slight	Slight
Eb: EDGELEY-----	Slight	Slight	Slight	Slight	Moderate: depth to rock
EcB: EDGELEY-----	Slight	Slight	Moderate: slope depth to rock	Slight	Moderate: depth to rock
CAVOUR-----	Severe: excess sodium	Severe: excess sodium	Severe: excess sodium	Slight	Severe: excess sodium
Ed: EDGELEY VARIANT-	Slight	Slight	Slight	Slight	Moderate: depth to rock
EeA: EGELAND-----	Slight	Slight	Slight	Slight	Slight
EeC: EGELAND-----	Moderate: slope	Moderate: slope	Severe: slope	Slight	Moderate: slope
Eg: EGELAND-----	Slight	Slight	Slight	Slight	Slight
EhA: EGELAND-----	Slight	Slight	Slight	Slight	Slight
EhB: EGELAND-----	Slight	Slight	Moderate: slope	Slight	Slight
EmC: EGELAND-----	Slight	Slight	Severe: slope	Slight	Slight
EMBDEN-----	Slight	Slight	Severe: slope	Slight	Slight

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Map symbol and soil name	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
EnA: EMBDEN-----	Slight	Slight	Slight	Slight	Slight
EoB: EMBDEN-----	Slight	Slight	Moderate: slope	Slight	Slight
EGELAND-----	Slight	Slight	Moderate: slope	Slight	Slight
EsA: HEIMDAL-----	Slight	Slight	Slight	Slight	Slight
SWENODA-----	Slight	Slight	Slight	Slight	Slight
EMBDEN-----	Slight	Slight	Slight	Slight	Slight
EsB: SWENODA-----	Slight	Slight	Moderate: slope	Slight	Slight
HEIMDAL-----	Slight	Slight	Moderate: slope	Slight	Slight
EMBDEN-----	Slight	Slight	Moderate: slope	Slight	Slight
Et: EMRICK-----	Slight	Slight	Slight	Slight	Slight
Eu: EMRICK-----	Slight	Slight	Slight	Slight	Slight
EvD: COE-----	Severe: slope	Severe: slope	Severe: slope	Moderate: slope	Severe: slope droughty
EMBDEN-----	Slight	Slight	Severe: slope	Slight	Slight
ESMOND-----	Severe: slope	Severe: slope	Severe: slope	Moderate: slope	Severe: slope
Ew: EXLINE-----	Severe: excess sodium	Severe: excess sodium	Severe: excess sodium	Moderate: wetness	Severe: excess sodium
Fa: FARGO-----	Severe: wetness	Severe: wetness	Severe: wetness	Severe: wetness	Severe: wetness
NUTLEY-----	Slight	Slight	Slight	Slight	Moderate: droughty
Fd: FORDVILLE-----	Slight	Slight	Slight	Slight	Slight
Fm: FOSSUM-----	Severe: wetness	Severe: wetness	Severe: wetness	Severe: wetness	Severe: wetness
Fo: FOSSUM-----	Severe: wetness	Severe: wetness	Severe: wetness	Severe: wetness	Severe: wetness

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Map symbol and soil name	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
Fp: FOSSUM-----	Severe: wetness	Severe: wetness	Severe: wetness	Severe: wetness	Severe: wetness
HAMAR-----	Severe: wetness	Moderate: wetness	Severe: wetness	Moderate: wetness	Moderate: wetness droughty
FrA: FRAM-----	Moderate: wetness	Moderate: wetness	Moderate: wetness	Moderate: wetness	Moderate: wetness
FrB: FRAM-----	Moderate: wetness	Moderate: wetness	Moderate: slope wetness	Moderate: wetness	Moderate: wetness
Fs: FRAM-----	Severe: excess salt	Severe: excess salt	Severe: excess salt	Slight	Severe: excess salt
Fw: FRAM-----	Moderate: wetness	Moderate: wetness	Moderate: wetness	Moderate: wetness	Moderate: wetness
WYNDMERE-----	Moderate: wetness	Moderate: wetness	Moderate: wetness	Moderate: wetness	Moderate: wetness droughty
GaA: GARDENA-----	Slight	Slight	Slight	Slight	Slight
GaB: GARDENA-----	Slight	Slight	Moderate: slope	Slight	Slight
Gd: GLYNDON-----	Slight	Slight	Slight	Slight	Slight
Gp: GRAVEL PIT-----	Severe: slope small stones	Severe: slope too sandy	Severe: slope small stones	Severe: slope too sandy	Severe: slope small stones droughty
Ha: HAMAR-----	Severe: wetness	Moderate: wetness	Severe: wetness	Moderate: wetness	Moderate: wetness droughty
Hb: HAMAR-----	Severe: wetness	Moderate: wetness	Severe: wetness	Moderate: wetness	Moderate: wetness droughty
Hc: HAMAR-----	Severe: wetness	Moderate: wetness	Severe: wetness	Moderate: wetness	Moderate: wetness droughty
Hd: HAMAR-----	Severe: wetness	Moderate: wetness	Severe: wetness	Moderate: wetness	Moderate: wetness droughty

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Map symbol and soil name	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
HeA: HAMERLY-----	Moderate: percs slowly wetness	Moderate: percs slowly wetness	Moderate: percs slowly wetness	Moderate: wetness	Moderate: wetness
HeB: HAMERLY-----	Moderate: percs slowly wetness	Moderate: percs slowly wetness	Moderate: percs slowly slope wetness	Moderate: wetness	Moderate: wetness
Hf: HAMERLY-----	Severe: excess salt	Severe: excess salt	Severe: excess salt	Moderate: wetness	Severe: excess salt
HgA: HAMERLY-----	Moderate: percs slowly wetness	Moderate: percs slowly wetness	Moderate: percs slowly wetness	Moderate: wetness	Moderate: wetness
SVEA-----	Slight	Slight	Moderate: small stones	Slight	Slight
HgB: HAMERLY-----	Moderate: percs slowly wetness	Moderate: percs slowly wetness	Moderate: percs slowly slope wetness	Moderate: wetness	Moderate: wetness
SVEA-----	Slight	Slight	Moderate: slope small stones	Slight	Slight
HhA: HECLA-----	Moderate: too sandy	Moderate: too sandy	Moderate: too sandy	Moderate: too sandy	Moderate: droughty
HhB: HECLA-----	Moderate: too sandy	Moderate: too sandy	Moderate: slope too sandy	Moderate: too sandy	Moderate: droughty
HkA: HECLA-----	Slight	Slight	Slight	Slight	Moderate: droughty
HkB: HECLA-----	Slight	Slight	Moderate: slope	Slight	Moderate: droughty
Hm: HECLA-----	Moderate: too sandy	Moderate: too sandy	Moderate: too sandy	Moderate: too sandy	Moderate: droughty
HAMAR-----	Severe: wetness	Moderate: wetness	Severe: wetness	Moderate: wetness	Moderate: wetness droughty
HnA: HECLA-----	Moderate: too sandy	Moderate: too sandy	Moderate: too sandy	Moderate: too sandy	Moderate: droughty
MADDOCK-----	Moderate: too sandy	Moderate: too sandy	Moderate: too sandy	Moderate: too sandy	Moderate: droughty

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Map symbol and soil name	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
HnB: HECLA-----	Moderate: too sandy	Moderate: too sandy	Moderate: slope too sandy	Moderate: too sandy	Moderate: droughty
MADDOCK-----	Moderate: too sandy	Moderate: too sandy	Moderate: slope too sandy	Moderate: too sandy	Moderate: droughty
HoA: HEIMDAL-----	Slight	Slight	Slight	Slight	Slight
HoB: HEIMDAL-----	Slight	Slight	Moderate: slope	Slight	Slight
HoC: HEIMDAL-----	Slight	Slight	Severe: slope	Slight	Slight
HpA: HEIMDAL-----	Slight	Slight	Slight	Slight	Slight
HpB: HEIMDAL-----	Slight	Slight	Moderate: slope	Slight	Slight
HpC: HEIMDAL-----	Slight	Slight	Severe: slope	Slight	Slight
HrD: HEIMDAL-----	Moderate: slope	Moderate: slope	Severe: slope	Slight	Moderate: slope
EMBDEN-----	Slight	Slight	Severe: slope	Slight	Slight
HrE: HEIMDAL-----	Severe: slope	Severe: slope	Severe: slope	Moderate: slope	Severe: slope
EMBDEN-----	Slight	Slight	Severe: slope	Slight	Slight
HsA: HEIMDAL-----	Slight	Slight	Slight	Slight	Slight
EMRICK-----	Slight	Slight	Slight	Slight	Slight
HsB: HEIMDAL-----	Slight	Slight	Moderate: slope	Slight	Slight
EMRICK-----	Slight	Slight	Moderate: slope	Slight	Slight
HtC: HEIMDAL-----	Slight	Slight	Severe: slope	Slight	Slight
EMRICK-----	Slight	Slight	Severe: slope	Slight	Slight
ESMOND-----	Slight	Slight	Severe: slope	Slight	Slight

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Map symbol and soil name	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
HtD: HEIMDAL-----	Moderate: slope	Moderate: slope	Severe: slope	Slight	Moderate: slope
EMRICK-----	Slight	Slight	Severe: slope	Slight	Slight
ESMOND-----	Moderate: slope	Moderate: slope	Severe: slope	Slight	Moderate: slope
HtE: HEIMDAL-----	Severe: slope	Severe: slope	Severe: slope	Moderate: slope	Severe: slope
ESMOND-----	Severe: slope	Severe: slope	Severe: slope	Moderate: slope	Severe: slope
EMRICK-----	Slight	Slight	Severe: slope	Slight	Slight
Ke: KENSAL-----	Slight	Slight	Slight	Slight	Slight
Kf: KENSAL-----	Slight	Slight	Slight	Slight	Slight
KoE: KLOTEN-----	Severe: area reclaim slope thin layer	Severe: area reclaim slope thin layer	Severe: area reclaim slope thin layer	Moderate: slope	Severe: area reclaim slope thin layer
KsE: KLOTEN-----	Severe: area reclaim slope thin layer	Severe: area reclaim slope thin layer	Severe: area reclaim slope thin layer	Moderate: slope	Severe: area reclaim slope thin layer
EDGELEY-----	Severe: slope	Severe: slope	Severe: slope	Moderate: slope	Severe: slope
SIOUX-----	Severe: slope	Severe: slope	Severe: slope	Moderate: slope	Severe: slope
Kt: KRATKA-----	Severe: wetness	Severe: wetness	Severe: wetness	Severe: wetness	Severe: wetness
La: LADELLE-----	Severe: flooding	Slight	Moderate: flooding	Slight	Moderate: flooding
Lb: LALLIE-----	Severe: excess salt ponding	Severe: excess salt ponding	Severe: excess salt ponding	Severe: ponding	Severe: excess salt ponding
Le: LAMOURE-----	Severe: flooding wetness	Severe: wetness	Severe: wetness	Severe: wetness	Severe: wetness

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Map symbol and soil name	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
Lm: LAMOURE-----	Severe: excess salt flooding wetness	Severe: excess salt wetness	Severe: excess salt wetness	Severe: wetness	Severe: excess salt wetness
Ln: LA PRAIRIE-----	Severe: flooding	Slight	Moderate: flooding	Slight	Moderate: flooding
Lp: LA PRAIRIE-----	Severe: flooding	Moderate: flooding	Severe: flooding	Moderate: flooding	Severe: flooding
LAMOURE-----	Severe: flooding wetness	Severe: wetness	Severe: flooding wetness	Severe: wetness	Severe: flooding wetness
Lr: LARSON-----	Severe: excess sodium	Severe: excess sodium	Severe: excess sodium	Slight	Severe: excess sodium
Ls: LEMERT-----	Severe: excess sodium	Severe: excess sodium	Severe: excess sodium	Slight	Severe: excess sodium
Lt: LETCHER-----	Severe: excess sodium	Severe: excess sodium	Severe: excess sodium	Slight	Severe: excess sodium
Lu: LETCHER-----	Severe: excess sodium	Severe: excess sodium	Severe: excess sodium	Slight	Severe: excess sodium
Lv: LOHNES-----	Moderate: too sandy	Moderate: too sandy	Moderate: too sandy	Moderate: too sandy	Moderate: too sandy droughty
Lw: LOHNES-----	Slight	Slight	Slight	Slight	Moderate: droughty
Lx: LUDDEN-----	Severe: flooding too clayey ponding	Severe: too clayey ponding	Severe: too clayey ponding	Severe: too clayey ponding	Severe: too clayey ponding
Lz: LAMOURE-----	Severe: flooding wetness	Severe: wetness	Severe: flooding wetness	Severe: wetness	Severe: flooding wetness
LUDDEN-----	Severe: flooding too clayey ponding	Severe: too clayey ponding	Severe: flooding too clayey ponding	Severe: too clayey ponding	Severe: flooding too clayey ponding
MaA: MADDOCK-----	Moderate: too sandy	Moderate: too sandy	Moderate: too sandy	Moderate: too sandy	Moderate: droughty

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Map symbol and soil name	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
MaB: MADDOCK-----	Moderate: too sandy	Moderate: too sandy	Moderate: slope too sandy	Moderate: too sandy	Moderate: droughty
MaC: MADDOCK-----	Moderate: too sandy	Moderate: too sandy	Severe: slope	Moderate: too sandy	Moderate: droughty
MbA: MADDOCK-----	Slight	Slight	Slight	Slight	Moderate: droughty
MbB: MADDOCK-----	Slight	Slight	Moderate: slope	Slight	Moderate: droughty
MbC: MADDOCK-----	Slight	Slight	Severe: slope	Slight	Moderate: droughty
MdB: MADDOCK-----	Slight	Slight	Moderate: slope	Slight	Moderate: droughty
DICKEY-----	Slight	Slight	Moderate: slope	Slight	Slight
MdC: MADDOCK-----	Slight	Slight	Severe: slope	Slight	Moderate: droughty
DICKEY-----	Slight	Slight	Severe: slope	Slight	Slight
MeD: MADDOCK-----	Severe: slope	Severe: slope	Severe: slope	Moderate: slope too sandy	Severe: slope
SERDEN-----	Severe: slope	Severe: slope	Severe: slope	Moderate: slope too sandy	Severe: slope
MfD: HECLA-----	Moderate: too sandy	Moderate: too sandy	Moderate: slope too sandy	Moderate: too sandy	Moderate: droughty
MADDOCK-----	Severe: slope	Severe: slope	Severe: slope	Moderate: slope too sandy	Severe: slope
SERDEN-----	Severe: slope	Severe: slope	Severe: slope	Moderate: slope too sandy	Severe: slope
Mg: MADE LAND-----	Slight	Slight	Severe: slope	Slight	Slight
Mh: MARSH-----	Severe: ponding	Severe: ponding	Severe: ponding	Severe: ponding	Severe: ponding

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Map symbol and soil name	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
Mm: MARYSLAND-----	Severe: wetness				
Mn: ARVESON-----	Severe: wetness				
MARYSLAND-----	Severe: wetness				
MwC: MINNEWAUKAN-----	Severe: flooding wetness	Severe: wetness	Severe: wetness	Severe: wetness	Severe: ponding droughty
Mx: MIRANDA-----	Severe: excess sodium	Severe: excess sodium	Severe: excess sodium	Slight	Severe: excess sodium
CAVOUR-----	Severe: excess sodium	Severe: excess sodium	Severe: excess sodium	Slight	Severe: excess sodium
Os: OSAKIS-----	Slight	Slight	Moderate: small stones	Slight	Moderate: droughty
Ot: OSAKIS-----	Slight	Slight	Moderate: small stones	Slight	Moderate: droughty
Ou: OSAKIS-----	Slight	Slight	Moderate: small stones	Slight	Moderate: droughty
Ov: OVERLY-----	Slight	Slight	Slight	Slight	Slight
Pa: PARNELL-----	Severe: ponding				
Pe: PEAT-----	Severe: excess humus ponding				
Pr: PERELLA-----	Severe: ponding				
Ra: RAUVILLE-----	Severe: flooding wetness	Severe: wetness	Severe: flooding wetness	Severe: wetness	Severe: flooding wetness
ReA: RENSHAW-----	Slight	Slight	Slight	Slight	Moderate: droughty
ReB: RENSHAW-----	Slight	Slight	Moderate: slope	Slight	Moderate: droughty

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Map symbol and soil name	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
Rn: RENSHAW-----	Slight	Slight	Slight	Slight	Moderate: droughty
Rs: RENSHAW-----	Slight	Slight	Slight	Slight	Moderate: droughty
Rt: RENSHAW-----	Slight	Slight	Slight	Slight	Moderate: droughty
Ry: RYAN-----	Severe: flooding percs slowly ponding	Severe: excess sodium ponding	Severe: percs slowly ponding	Severe: ponding	Severe: excess sodium ponding
Rz: RYAN-----	Severe: flooding percs slowly ponding	Severe: excess sodium ponding	Severe: percs slowly ponding	Severe: ponding	Severe: excess sodium ponding
LAMOURE-----	Severe: flooding wetness	Severe: wetness	Severe: wetness	Severe: wetness	Severe: wetness
Se: SERDEN-----	Severe: too sandy	Severe: too sandy	Severe: too sandy	Severe: too sandy	Moderate: too sandy droughty
HAMAR-----	Severe: wetness	Moderate: wetness	Severe: wetness	Moderate: wetness	Moderate: wetness droughty
SoB: SIOUX-----	Moderate: small stones	Moderate: small stones	Severe: small stones	Slight	Severe: droughty
SoE: SIOUX-----	Severe: slope	Severe: slope	Severe: slope small stones	Moderate: slope	Severe: droughty
Sp: SPOTTSWOOD----	Slight	Slight	Slight	Slight	Slight
Sr: SPOTTSWOOD----	Slight	Slight	Slight	Slight	Slight
Ss: STIRUM-----	Severe: excess sodium ponding	Severe: excess sodium ponding	Severe: excess sodium ponding	Severe: ponding	Severe: excess sodium ponding
St: SVEA-----	Slight	Slight	Moderate: small stones	Slight	Slight
Su: SVEA VARIANT---	Slight	Slight	Slight	Slight	Slight

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Map symbol and soil name	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
SvA: SVEA-----	Slight	Slight	Moderate: small stones	Slight	Slight
BARNES-----	Slight	Slight	Moderate: small stones	Slight	Slight
SvB: SVEA-----	Slight	Slight	Moderate: slope small stones	Slight	Slight
BARNES-----	Slight	Slight	Moderate: slope small stones	Slight	Slight
SwC: SVEA-----	Slight	Slight	Severe: slope	Slight	Slight
BARNES-----	Slight	Slight	Severe: slope	Slight	Slight
BUSE-----	Slight	Slight	Severe: slope	Slight	Slight
Sx: SVEA-----	Slight	Slight	Moderate: small stones	Slight	Slight
CRESBARD-----	Severe: excess sodium	Severe: excess sodium	Severe: excess sodium	Slight	Severe: excess sodium
Sz: EMBDEN-----	Slight	Slight	Slight	Slight	Slight
SWENODA-----	Slight	Slight	Slight	Slight	Slight
Tf: TIFFANY-----	Severe: ponding	Severe: ponding	Severe: ponding	Severe: ponding	Severe: ponding
Tg: TIFFANY-----	Severe: ponding	Severe: ponding	Severe: ponding	Severe: ponding	Severe: ponding
Tn: TOLNA-----	Severe: flooding	Moderate: flooding wetness	Severe: flooding	Moderate: flooding wetness	Severe: flooding
Ts: TOTTEN-----	Severe: excess sodium wetness	Severe: excess sodium wetness	Severe: excess sodium wetness	Severe: wetness	Severe: excess sodium wetness
Tu: TOTTEN-----	Severe: excess sodium wetness	Severe: excess sodium wetness	Severe: excess sodium wetness	Severe: wetness	Severe: excess sodium wetness
Tv: TOTTEN-----	Severe: excess sodium wetness	Severe: excess sodium wetness	Severe: excess sodium wetness	Severe: wetness	Severe: excess sodium wetness

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Map symbol and soil name	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
TwA: TOWNER-----	Slight	Slight	Slight	Slight	Moderate: droughty
TwB: TOWNER-----	Slight	Slight	Moderate: slope	Slight	Moderate: droughty
Tx: TOWNER-----	Slight	Slight	Slight	Slight	Moderate: droughty
DICKEY-----	Slight	Slight	Slight	Slight	Slight
Va: VALLERS-----	Severe: wetness	Moderate: percs slowly wetness	Severe: wetness	Moderate: wetness	Moderate: wetness
Vn: VANG-----	Slight	Slight	Slight	Slight	Slight
Vo: VENLO-----	Severe: ponding	Severe: ponding	Severe: ponding	Severe: ponding	Severe: ponding
W: WATER-----	---	---	---	---	---
Wa: WAHPETON-----	Severe: flooding	Moderate: too clayey	Moderate: flooding too clayey	Moderate: too clayey	Severe: too clayey
WbB: WALSH-----	Slight	Slight	Moderate: slope small stones	Slight	Slight
WbC: WALSH-----	Slight	Slight	Severe: slope	Slight	Slight
WcA: WALSH-----	Slight	Slight	Moderate: small stones	Slight	Slight
WcB: WALSH-----	Slight	Slight	Moderate: slope small stones	Slight	Slight
WcC: WALSH-----	Slight	Slight	Severe: slope	Slight	Slight
Wd: WALUM-----	Slight	Slight	Slight	Slight	Moderate: droughty
We: WALUM-----	Slight	Slight	Slight	Slight	Moderate: droughty

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Map symbol and soil name	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
Wf: WARSING-----	Slight	Slight	Slight	Slight	Moderate: droughty
Wg: WARSING-----	Slight	Slight	Slight	Slight	Moderate: droughty
Wm: WARSING-----	Slight	Slight	Slight	Slight	Moderate: droughty
Wn: WYARD-----	Severe: wetness	Moderate: wetness	Severe: wetness	Moderate: wetness	Moderate: wetness
Wo: WYNDMERE-----	Moderate: wetness	Moderate: wetness	Moderate: wetness	Moderate: wetness	Moderate: wetness droughty
Wp: WYNDMERE-----	Moderate: wetness	Moderate: wetness	Moderate: wetness	Slight	Slight
Wr: WYRENE-----	Moderate: wetness	Moderate: wetness	Moderate: small stones wetness	Moderate: wetness	Moderate: wetness droughty
Ws: WYRENE-----	Slight	Slight	Moderate: small stones	Slight	Moderate: droughty
Wt: WYRENE-----	Moderate: wetness	Moderate: wetness	Moderate: small stones wetness	Moderate: wetness	Moderate: wetness droughty
TOTTEN-----	Severe: excess sodium wetness	Severe: excess sodium wetness	Severe: excess sodium wetness	Severe: wetness	Severe: excess sodium wetness

